Videotape Kitchen Notes 10/72 Walter Wright

Videotape by Walter Wright - Program.

① <u>"31"</u> 6/16/72
   ½" Sony color - an abstract tape using a series of
   still photographs & computer drawn cells - intended
   to demonstrate the potential of a video synthesizer -
   grand prize winner, First National Video Tape Festival.

② <u>Composition #4 - Son of Godzilla</u> 8/20/72
   ½" Sony color - the last in a series of compositions
   for live TV input — uses two channels of video
   (a movie Son of Godzilla and the Trenton 300 Stock
   Car Race) and three audio tracks (the movie,
   the stock car race and the synthesizer.

③ <u>A Tape for Alix</u> 9/3/72
   ½" Sony color - a composition using prerecorded tape
   (from an Akai ¼" porta pak) as input - pieces of the
   original tape are introduced unanimated then
   repeated in animation — a mood piece.

④ <u>Hendrix, Joplin, Alice Cooper</u> 9/14/72
   ½" Sony color - real time animation over an original
   2" tape - the Hendrix sound track is distorted on
   the master.

⑤ <u>Paper Shoes</u> 10/7/72
   2" quad hi band color - animation of two basic cells
   (one of horiz lines the other vertical lines) done in two
   passes - the first pass becomes background over
   which the second pass is keyed — the track is
   <u>Paper Shoes</u> by Yoko Ono.

My tapes are made on the Scanimate "computer" system built by Computer Image Corp. Scanimate is a first generation video synthesizer. Images are input in a number of ways — thru (2) 1000 line b&w vidicon cameras (these cameras may look at still artwork, a TV monitor, etc), from an Ampex 2" VTR, or from a studio camera. Two of these input channels pass thru a video mixer to the Scanimate CPU (main control unit) where position & size of the image are controlled. The input TV raster may be repositioned right or left, up or down; it may be reduced in width or length (height); it may be reduced in overall size to a point or thru a point reappearing inverted and mirror image.

Also on the CPU are (3) oscillators. The horizontal oscillator repositions the raster lines left to right producing a wave-like distortion running up or down thru the TV image. The vertical oscillator repositions the raster lines up & down producing a rolling distortion. The depth oscillator effects the overall size of the raster producing at low frequencies a pulsating zoom & at higher frequencies a 3-D roll distortion. The CPU also controls the axiis,

(the lines about which an image folds) and allows the image to be broken into as many as (5) seperate sections.

The Animation Aid provides (5) more oscillators, timing control, and a patchboard allowing seperate control over individual sections. There are (2) high speed oscillators (15K Hz up) which may be phase locked to the horizontal synch pulse (low speed oscillators lock to the vertical synch pulse). There is a special pair of oscillators running 90° out of phase which are used to generate circles, spirals & diamond shapes. And finally one additional low speed oscillator similar to those on the CPU. The oscillators on the Animation Aid allow amplitude modulation. Thru the patchboard these oscillators may drive horizontal, vertical, depth, width, length, axiis, or intensity..

The animated image is output from the CPU to a
high resolution CRT display. It is rescanned with a
plumbicon camera at standard TV rates (525 lines/frame
15,750 lines/sec). The output of the rescan camera goes to
the Colorizer.

At the input to the Colorizer the image is encoded
in (5) grey levels. Any color may be keyed over a grey
level by using the Red, Green, Blue slider pots assigned
to that level. The electronically colored image then
goes to a switcher where other video signals may be
mixed, keyed, or become a background replacing one of
the five grey levels.

I play Scanimate as an instrument and all my tapes
are made in real time without preprogramming. I also
try to avoid editing. I am designing & hope to build
a live performance video synthesizer using components
of the Scanimate system and adding portable cameras,
an 8 level colorizer, a controlled feedback loop & 2" 61
color tape input & output. Most of my tapes have a
score as in music. I am slowly developing a
notation system representing the basic animations
available on a video synthesizer. I include
with these notes a brief outline of these notation
symbols and two scores.
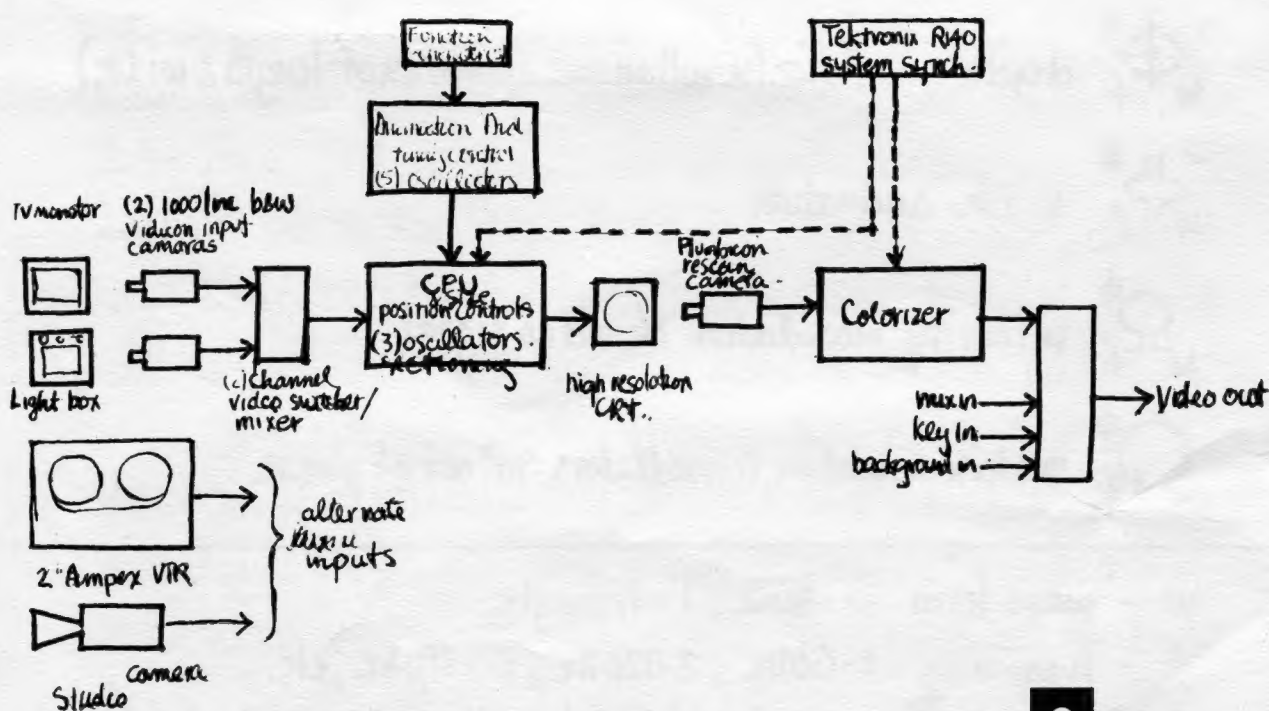
Scanimate - Block Diagram

Notation for Video Synthesizer

$_w\mathcal{E}_f^\phi$ horiz animation of TV raster

$_w\sigma_f^\phi$ horiz animation using a high speed oscillator

$_w\mathcal{E}_f^\phi$ vertical animation of TV raster

$_w\mathcal{M}_f^\phi$ vertical animation using a high speed oscillator

$_w\oplus_f^\phi$ depth animation (simultaneous animation of length & width)

$_w\rangle\langle_f^\phi$ width animation

$_w\Omega_f^\phi$ intensity modulation of video signal

$_w\mathcal{Q}_f^\phi$ rotation animation, (2) oscillators 90° out of phase.

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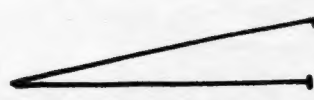
w – wave form   S-sine, T-triangle
f – frequency   1-60Hz, 2-120Hz, 3-180hz, etc.
ϕ – phase lock, low speed osc's lock to vert synch, hi speed to horiz

∇ – low amplitude.
Δ – hi amplitude.

_____   manual control over amplitude.

AM – amplitude modulation (eg) $_S\mathcal{Q}_{3}AM_{3}low_{0-1}^\phi$ (spiral).

$\rightarrow\!\!\ast\!\!\leftarrow$ zoom back

$\langle\updownarrow\rangle$ zoom up.

$\rightarrow\!|\!\leftarrow$ fold in width

$\ast\!|$ fold in length.

Composition for Video Synthesizer #4   8/19/72

	video	animation	color	audio
		color bars.		① ③
1	⑬	⤲ (contract) $\nabla_s \mathfrak{e}_4$, $\nabla_s \bigoplus_2$	▷ O_1, B_2, BG_3, G_4, R_5	
		$_s\Omega_1$, AM $_s$low$^\phi_{0-1}$ (spiral) fade vert, depth $\nabla_T \Sigma_{1\frac{1}{2}}$ ◁———— →↓← ↔↕ , all off	△ W_1, BG_2	
2	Ⓜ	$\nabla_s \mathcal{M}_3$, $\nabla_s \Omega_3$ AM $\left(_s\text{hi}^\phi_{0-1} + _s\text{low}_{0-1}\right)$	◁ Bl_{1-2}, W_{3-5} Y_1, P_2, B_3, G_4, R_5	② ③
3		$\left(\nabla_s \bigoplus_1 , _s \bigoplus_{0-4}\right)$ thru zero fade off depth, at point $_s\Omega_1$, AM $_s$low$_{0-1}$, $_s\mathcal{M}_{0-1}$ ↔↕	△ W_1, B_2 ▷	① ② ③ ① ② ③
4	Ⓜ	repeat 2 use $\nabla_s \mathcal{M}_3$ ⤒ $_s\mathfrak{e}_{3-1}$ $_s\mathfrak{e}_{1-3}$, $_T\Sigma_3$ vert off $_T\Sigma_{3-1}$	△ ▷ Bl_1, R_2, G_3, O_4, Y_5	① ③
5	⑬ mix.	feedback $\nabla_T \Sigma_{1\frac{1}{2}}$	△ Bl_1, W_2, Bl_{3-5} B_1, O_2	③
	salt + pepper.	titles. $_s\Omega_1$, AM $_s$hi$^\phi_{0-1}$		

A Tape for Alix. 9/2/72

video.	animation	color.	audio.
	color bars		① only.
Ⓑ part one / edit.		$\triangle\ R_1, Bl_2, W_{3-5}$	
part one	$_T\varepsilon_{1\frac{1}{2}}$ (ramp)	O_{1-5} / $\triangleright\ B_1, BG_2, O_3, Y_4, W_5$	
part two	$_S\varepsilon_1$ (triangle)		
part three. / edit.		$A\ R_1, Bl_2, W_{3-5}$	
part three	$_S\oplus_{0-3}$ $_S\varepsilon_{0-3}$ depth, vert off →✴← (init). $_3\Omega_5$ AM slow$_{0-1}$ (spiral)	G_{1-5} / $\triangleright Bl_1, P_2, G_3, BG_4, O_5$	
part three	(1) (2) init → final. (X2) $_S\varepsilon_1$ →✴← $_S\Omega_3$ AM $_S$ hi$^{\phi}_{0-3}$	$\triangle\ B_{1-5}$ / $\triangleright\ W_1, BG_2, B_3, R_4, G_5$ $Bl_1, P_2, G_3, BG_4, O_5$	
edit.			
parts three + four.	(1)(2)(3)(4) init $_T\Omega_{1-3}$ AM $_S$ hi$^{\phi}_1$ (flowers) $_T\varepsilon_{0-3}$ all off ↔↕	$\triangle\ O_{1-5}$ / $\triangleright\ B_1, BG_2, O_3, Y_4, W_5$	
edit			
part four / edit.		$\triangle\ R_1, Bl_2, W_{3-5}$	
parts three + four	(1)(2)(3), 3 ramps I/F →|← $_{/S}\varepsilon_{0-1}$ $_{/S}\varepsilon_{0-1}$ all off	P_{1-5} / $\triangleright W_1, BG_2, B_3, R_4, O_5$	
edit.			
Ⓑ mix parts three + four.	feedback titles	$\triangleright Bl_1, W_2, Bl_{3-5}$ B_1, O_2 $\triangle\ Bl_1, P_2, B_3, R_4, O_5$	